

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii 96813

May 23, 2014

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Hawaii

Report to the Board on the Early Termination of the Sublease for the United Kingdom Infrared Telescope under General Lease No. S-4191, University of Hawaii, Lessee, to Science and Technology Facilities Council, Sublessee, Kaohe, Hamakua, Island of Hawaii, Tax Map Key: 3rd/ 4-4-15: 09 por.

APPLICANT:

University of Hawaii, as Sublessor, and Science and Technology Facilities Council, a government agency of the United Kingdom, as Sublessee.

LEGAL REFERENCE:

Section 171-6 and -36, Hawaii Revised Statutes, as amended.

LOCATION:

Portion of Government lands of Kaohe situated at Hamakua, Island of Hawaii, identified by Tax Map Key: 3rd/ 4-4-15: 09, as shown on the attached maps labeled Attachment 1.

AREA:

Lease Area:	11,215.554 acres, more or less.
Sublease Area:	32,000 square feet, more or less.

TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: NO

LEASE CHARACTER OF USE:

For a scientific complex, including without limitation thereof an observatory, and as a scientific reserve being more specifically a buffer zone to prevent the intrusion of activities inimical to said scientific complex. Activities inimical to said scientific complex shall include light and dust interference to observatory operation and certain types of electric or electronic installation on the demised lands, but shall not necessarily be limited to the foregoing.

SUBLEASE CHARACTER OF USE:

Sublessee shall use the premises exclusively for astronomical facilities to be constructed and managed by and at the expense of Sublessee in cooperation with the University of Hawaii.

TERM OF LEASE:

65 years, commencing on January 1, 1968 and expiring on December 31, 2033. There are no rental reopenings under the lease.

TERM OF SUBLEASE:

Initial term of 27 years commencing on January 21, 1976, and thereafter subject to automatic extension without further notice or execution of further documents until the expiration of General Lease No. S-4191 on December 31, 2033.

ANNUAL LEASE RENTAL:

Gratis.

ANNUAL SUBLEASE RENTAL:

In lieu of paying rental for the demised premises, Sublessee grants to the Sublessor the exclusive use during 15% of the time at the facility constructed under the sublease.

REMARKS:

By letter dated May 2, 2014, the University of Hawaii (UH), through the Chancellor of its Hilo campus, notified the Board of Land and Natural Resources (Board) of the early termination of the sublease under General Lease No. S-4191, with UH, as Sublessor, and Science and Technology Facilities Council, a government agency of the United Kingdom, as Sublessee. A copy of UH's letter with its enclosures is attached as Attachment 2. Below, staff provides background on General Lease No. S-4191, the sublease with Science and Technology Facilities Council, and the Mauna Kea management plans.

General Lease No. S-4191 and Sublease

At its meeting of November 22, 1967, Item F-31, the Board approved the issuance of a 65-year lease of the Mauna Kea summit to UH “[t]o serve as a Scientific Reserve and, specifically, as a buffer zone to prevent the intrusion of activities inimical to scientific complex, including an observatory, in the process of being located near the Mauna Kea summit”. General Lease No. S-4191 dated June 21, 1968 was thereafter issued to UH with a commencement date of January 1, 1968 and a termination date of December 31, 2033 (a copy of the lease is included in Attachment 2).

Subsequently, UH obtained Board approval for a number of subleases itemized in Attachment 3. One of those subleases was issued to the Science Research Council (SRC). The Board approved Conservation District Use Permit (CDUP) HA-653 for the facility on the premises at its meeting of August 29, 1975, Item H-5. At its meeting of November 18, 1977, Item F-17, the Board consented to the sublease between UH and SRC. The sublease was for a term of 27 years. However, the Board action authorized the automatic extension of the sublease up to the full term of General Lease No. S-4191 (i.e., to December 31, 2033). The Board imposed two conditions on the Board’s consent to the sublease:

- A. Either the Sublessee or the Sublessor inform the Board in writing of any extension of the Sublease Agreement beyond the tenure of twenty-seven (27) years.
- B. That the sublessee obtain, in lieu of a bond, in writing, a commitment by the Government of the United Kingdom guaranteeing removal of the observatory structure and returning the site back to a condition acceptable by the Department, in the event the observatory is no longer needed.

In the event that the Government of the United Kingdom does not post such a written guarantee, the sublessee shall post and keep in force a bond or other security acceptable to the Department in the amount of \$300,000 to guarantee such removal and restoration.

A copy of the Board action of November 18, 1977, Item F-17, is attached as Attachment 4.

The written commitment for the removal of the observatory was secured on July 18, 1978 as required by the Board. The sublease was thereafter executed on September 21, 1978 (a copy of the sublease is included in Attachment 2). In the ensuing years, SRC changed its name to the Science and Engineering Research Council in 1981, to the Particle Physics and Astronomy Research Council in 1994, and finally to Science and Technology Facilities Council (STFC) in 2007. None of these name changes involved an assignment of the sublease.

The automatic extension of the sublease was exercised, but neither Sublessee nor Sublessor informed the Board in writing of the extension until receipt of UH's letter of May 2, 2014 (Attachment 2). One reason for this oversight may have been that the sublease agreement, which was signed by UH, SRC and the then Chairperson of the Board, did not incorporate condition A above. Rather, the relevant portion of the sublease provides that the principal term of the sublease is "subject to automatic extension without further notice or execution of further documents until the expiration of the General Lease on December 31, 2033." See Attachment 2, Sublease at section II.

With respect to ownership of improvements on the sublease premise, the sublease provides at section XIII in part as follows:

The Sublessor upon the termination or expiration of this Sublease for any cause shall have the first option within thirty (30) days thereafter, upon notice in writing to Sublessee, to purchase at a negotiated figure all structural alterations, additions, improvements made and equipment affixed or installed with the approval of Sublessor and at the expense of Sublessee. . . .

UH and STFC have reached an agreement for UH to acquire the improvements and equipment on the premises. See the parties' proposed Sublease Termination Agreement, a copy of which is included in Attachment 2. In short, the agreement provides that STFC will relinquish the premises and improvements thereon to UH and pay UH \$2.5 million to cover the cost of decommissioning the observatory. UH reports that it has obtained estimates for removal of the structure that fall within the \$2.5 million budgeted amount. However, UH desires to maintain the facility in place for its continued use as an observatory in cooperation with other parties. In the meantime, UH explains it will hold the \$2.5 million and apply it solely toward the eventual decommissioning of the facility prior to December 31, 2033 in accordance with the Decommissioning Plan for the Mauna Kea Observatories, a subplan of the Comprehensive Management Plan approved by the Board in 2010. See letter from UH in Attachment 2.

Management Plans

At its meeting of February 11, 1977, Item H-10, the Board adopted the first management plan for Mauna Kea. The management plan served as a policy framework for the management of Mauna Kea from the summit to about the 6,000 foot elevation. It stated jurisdictional responsibilities for specific resources and uses, and defined specific uses and facilities to be allowed. This development plan evolved and expanded over the years, culminating in the Comprehensive Management Plan mentioned above, and discussed in further detail below.

At its meeting of December 16, 1983, Item H-5, the Board amended the plan as to the permissibility of overhead power lines and the paving of the summit access road. At its meeting of February 10, 1984, Item H-4, the Board approved CDUP HA-1573 for the

installation of a permanent power line and improvements to the Summit Access Road, and also approved UH's revised management plan, with certain amendments. At its meeting of February 22, 1985, Item H-6, the Board accepted and approved the Final Management Plan under CDUP HA-1573.

At its meeting of March 10, 1995, Item H-2, as amended, the Board approved a revised management plan to include a commercial activities element under CDUP HA-1573A. The revised plan allowed a limited number of commercial tour permits so operators could take customers up the mountain for various recreational activities. At its meeting of December 15, 2000, Item D-28, as amended, the Board approved the transfer of commercial permitting authority to UH.


Also in 2000, UH adopted the Mauna Kea Science Reserve Master Plan. Nine years later, the Mauna Kea Comprehensive Management Plan ("CMP") and its subplans (Cultural Resources Management Plan, Natural Resources Management Plan, Public Access Plan, and Decommissioning Plan), were adopted by the Board at its meetings of April 9, 2009, Item K-1, and March 25, 2010, Item K-1, respectively.

The Decommissioning Plan provides that the STFC facility is to be removed and the site restored at the end of operation. As discussed above, UH has committed to decommissioning the facility when it ceases operation of the telescope, and will receive funds from STFC to cover the decommissioning under the parties' proposed Sublease Termination Agreement.

Summary

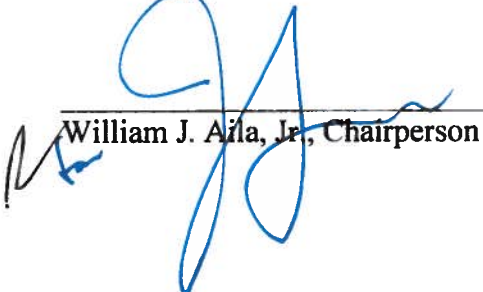
There is no staff recommendation as this is a non-action item. Staff wanted the Board to be aware of the early termination of the sublease and UH's intent to take over the facility and assume responsibility for its decommissioning at the appropriate time.

Respectfully Submitted,



Kevin E. Moore
Assistant Administrator

APPROVED FOR SUBMITTAL:



William J. Aila, Jr., Chairperson



EXHIBIT A

0 300 600

FEET

MAY 1975

13400

3m INFRARED TELESCOPE
FACILITY

300 FT. DIA. CIRCLE
APPROX. CENTER COORDINATES
19° 49' 45" N
155° 28' 29" W

3.6m CFH

61cm PLANETARY PATROL

2.24m UH
13,777

3.8m UKIRT

61cm AIR FORCE

SUMMIT
13796

VABM

Approximate Coordinates of UKIRT Site
19° 49' 31" N, 155° 28' 25" W



UNIVERSITY
of HAWAII
HILO

Office of the Chancellor

May 2, 2014

Board of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl St.
Honolulu, HI 96813



Re: Notice of termination of the sublease for the United Kingdom Infrared Telescope

Dear Chair Aila and Members of the Board:

The Science and Technology Facilities Council of the United Kingdom ("STFC")¹ currently holds a sublease dated September 21, 1978 (the "Sublease") for a site on Maunakea on which it operates the United Kingdom Infrared Telescope ("UKIRT"). This letter provides notice to the Board of Land and Natural Resources ("BLNR") of the impending termination of the Sublease.

The Sublease was approved by the BLNR at its meeting of November 18, 1977, in accordance with the consent requirement set forth in section 5 of the General Lease S-4191 (the "Master Lease"). The sublease contained a principal term of 27 years subject to an "automatic extension without further notice or execution of further documents until the expiration of the General Lease on December 31, 2033." That extension occurred automatically in accordance with the terms of the Sublease, and STFC continues to operate the UKIRT facility pursuant to its terms.

On April 17, 2014, the University's Board of Regents approved a Sublease Termination Agreement between the University and STFC in the form enclosed as Exhibit A. The Sublease Termination Agreement provides that the Sublease will terminate and the

¹ STFC is the science funding agency of the United Kingdom government responsible for funding and administering the UK's astronomy research facilities. The original party to the Sublease was a predecessor agency, the Science Research Council. Through successive administrative reorganizations within the UK government, the responsible agency became the Science and Engineering Research Council in 1981, the Particle Physics and Astronomy Research Council in 1994, and STFC in 2007. None of these reorganizations involved assignment of the Sublease.

ATTACHMENT 2

200 W. Kāwili St.
Hilo, Hawaii 96720-4091
Telephone: (808) 932-7348
Fax: (808) 932-7338
hilo.hawaii.edu
An Equal Opportunity/Affirmative Action Institution

University will assume full ownership of the UKIRT facility in as-is condition. STFC will pay the University \$2.5 million, which the University agrees to hold and apply solely toward the eventual decommissioning of the facility in accordance with the Decommissioning Plan for the Mauna Kea Observatories, a subplan of the Comprehensive Management Plan, approved by the BLNR in 2010, and other applicable standards. The parties will release each other from their obligations under the Sublease, with limited exceptions.

After termination of the Sublease, the University plans to continue operation of the UKIRT facility for a period of time in cooperation with other parties. The University will decommission the telescope and remove the UKIRT facility from Maunakea before December 31, 2033.

Please do not hesitate to contact me if you have any questions or concerns regarding this matter or require any further information.

Very truly yours,

A handwritten signature in black ink that reads "Donald Straney". The signature is written in a cursive, flowing style.

Donald Straney
Chancellor

Enclosure

SUBLEASE TERMINATION AGREEMENT

This Sublease Termination Agreement ("**Agreement**") is made and entered into on the date last written below, by and between the University of Hawaii, the public university and a public body corporate of the State of Hawaii, whose principal offices are at Bachman Hall, 2444 Dole Street, Honolulu, HI 96822 ("**UH**"), and the Science and Technology Facilities Council of the United Kingdom, whose principal offices are at Polaris House, North Star Avenue, Swindon, SN2 1SZ, Daresbury Laboratory, Daresbury Science and Innovation Campus, Daresbury, WA4 4AD and Rutherford Appleton Laboratory, Harwell Oxford, Didcot, OX11 0XQ ("**STFC**").

Recitals

A. UH and the Science Research Council, to which STFC is the successor in title and function, entered into (1) that certain Sublease Agreement dated September 21, 1978 ("**Sublease**"), pursuant to which STFC subleases from UH certain lands near the summit of Mauna Kea, Hawaii, as more particularly described in and demised by the Sublease and specifically identified in Exhibit A of the Sublease (the "**Subleased Premises**"), for purposes of erecting and operating a 3.8 meter telescope known as the United Kingdom Infrared Telescope ("**UKIRT**"), as more fully described in the Sublease, and (2) that certain Agreement Between: The Science Research Council and the University of Hawaii Concerning the Construction and Operation of a 3.8 Meter Telescope on Mauna Kea dated 18th July 1978 (the "**Operating Agreement**"). The Sublease is attached hereto as Exhibit A and the Operating Agreement is attached as Exhibit B.

B. STFC and UH mutually desire to terminate the Sublease and the Operating Agreement on the terms set forth herein.

Agreement

In consideration of the foregoing and of the mutual covenants and agreements set forth herein, UH and STFC agree as follows:

1. Termination. The Sublease and Operating Agreement shall terminate at midnight on _____ (the "**Effective Date**"), provided that such date may be changed by mutual written agreement of UH and STFC. Upon termination, STFC shall surrender the Subleased Premises and all improvements, including, without limitation, the UKIRT enclosure, telescope, instruments, support equipment, software, and documentation, as listed in Exhibit C (collectively, the "**UKIRT Improvements**"), to UH, and UH shall become the legal owner thereof. Thereafter, the Sublease shall be extinguished, and STFC shall have no further interest or rights in the Subleased Premises or the UKIRT Improvements other than those detailed as per section 3 of this Agreement.

2. Retained Intellectual Property. Notwithstanding the foregoing, STFC shall retain ownership of certain intellectual property associated with the UKIRT Improvements, as listed in Exhibit D (the "**Retained Intellectual Property**"). UH shall have a license to use the Retained Intellectual Property, without compensation, and to assign or sublicense its license to use the Retained Intellectual Property to third parties, solely in connection with the use and operation of the UKIRT Improvements.

3. Decommissioning Fund. STFC shall pay TWO MILLION FIVE HUNDRED THOUSAND DOLLARS (\$2,500,000.00) (the "**Payment**") to UH, or such other party as UH may designate in writing, to be held and applied for the sole purpose of discharging STFC's obligations with respect to decommissioning and restoration of the Subleased Premises in accordance with the terms of the Sublease, the Mauna Kea Comprehensive Management Plan (including subplans), and applicable law. If and to the extent that STFC may be found liable to any third party in respect of restoration or similar remediation of the Subleased Premises notwithstanding this Agreement, the Payment shall be applied to the satisfaction of such restoration or remediation expenses as determined by UH after consultation with STFC.

4. Environmental Matters. UH acknowledges that STFC has obtained and delivered to UH a Phase I environmental site assessment of the Subleased Premises ("Phase I"), which concludes that "there are no recognized environmental conditions associated with the past or present use of the subject property". Based on the Phase I, UH acknowledges and agrees that no environmental remediation is required in connection with the termination of the Sublease.

5. No Third Party Rights. STFC represents and warrants to the University that it has full power and authority to execute and perform this Agreement and to terminate and surrender all rights under the Sublease and Operating Agreement, and that STFC's execution and performance of this Agreement are not in contravention of any rights of or obligations to any other party.

6. Condition of Property: Representations and Warranties; Release. UH represents and warrants that it has inspected the Subleased Premises and UKIRT Improvements and is aware of the condition thereof to the extent that such condition is ascertainable through reasonable inspection. STFC represents and warrants it does not have knowledge of any material defect or condition of the Subleased Premises or UKIRT Improvements, including, without limitation, any environmental contamination or discharge of hazardous materials, that has not been disclosed to UH and is not ascertainable through reasonable inspection. UH shall accept the Subleased Premises and UKIRT Improvements in as-is condition, including any conditions disclosed to UH or ascertainable through reasonable inspection. In consideration of the foregoing and of STFC's performance of its obligations under this Agreement, including, without limitation, the payment to be made pursuant to Section 3 above, UH and STFC release each other, and their respective predecessors, successors, and assigns, effective as of the Effective Date,

from any and all covenants in the Sublease and Operating Agreement and from any obligations or liabilities thereunder, including, without limitation, the obligations set forth in Section XIII of the Sublease; provided, however, that the release granted hereby shall not include any claim or liability arising from this Agreement or any breach of the terms and conditions hereof, or to any claim for indemnification under Section III (General Liability) of the Sublease with respect to any loss, liability, claim, or demand arising prior to the Effective Date. UH and STFC further agree that UH shall not hold STFC liable in any case for any costs or damages arising further to environmental or similar remediation requirements incurred after the Effective Date (even to the extent that such remediation may relate to the UKIRT Improvements), unless such costs or damage relates to a condition of which STFC knew or had reason to know prior to the Effective Date and did not disclose to UH.

7. Governing Law. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Hawaii.

IN WITNESS WHEREOF, UH and STFC have executed this agreement this ____ day of _____, 2014.

UNIVERSITY OF HAWAII

By _____

APPROVED AS TO FORM:

By _____

By _____

SCIENCE AND TECHNOLOGY FACILITIES
COUNCIL

By _____

By _____

STATE OF HAWAII

)
) ss.

CITY AND COUNTY OF HONOLULU)

On this ____ day of _____, 2014, before me appeared _____, to me personally known, who being by me duly sworn, did say that he is the _____ of the University of Hawaii, the state university and a body corporate of the State of Hawaii, and that said instrument was signed on behalf of said University of Hawaii by authority of its Board of Regents, and said _____ as said _____, acknowledge said instrument to be the free act and deed of said University of Hawaii.

Notary Public, First Circuit
State of Hawaii

My Commission Expires: _____

Date of Document: _____		# Pages: _____
or <input type="checkbox"/> Undated at time of notarization		
Name: _____	First Circuit	
Doc. Description: _____		

Notary Signature		Date
NOTARY CERTIFICATION		

KINGDOM OF ENGLAND)
) ss:
COUNTY OF GREATER LONDON)

On this ____ day of _____, 2014, before me appeared
_____ and _____, of the
SCIENCE RESEARCH COUNCIL, to me personally known, who being by me duly
sworn, did say that they are the persons described in and who executed the
foregoing instrument, and acknowledged that they executed the same as their free
act and deed, and further declare that they are the _____
and _____, respectively, of the SCIENCE RESEARCH COUNCIL,
and that the seal affixed to the foregoing instrument is the seal of said Council and
that said instrument was signed and sealed on behalf of said Council by authority of
the Chairman.

Notary Public

Of London, England.

My commission expires: _____

RECORDATION REQUESTED BY:

AFTER RECORDATION, RETURN TO:

When completed: Mail ()
Pick up () Phone:

SUBLEASE AGREEMENT

THIS SUBLEASE, made this 21st day of September, 1978, by and between the UNIVERSITY OF HAWAII, hereinafter called "Sublessor", and the SCIENCE RESEARCH COUNCIL, whose principal place of business and post office address is Polaris House, PO Box 18, Swindon, SN2 1ET, England, hereinafter called "Sublessee", and approved by the Board of Land and Natural Resources pursuant to the requirements of item 5 of General Lease S-4191 between the State of Hawaii by its Board of Land and Natural Resources and the University of Hawaii dated June 21, 1968,

W I T N E S S E T H T H A T:

The Sublessor, in consideration of the rent hereinafter reserved and upon the conditions, covenants and agreements hereinafter expressed, does hereby demise and let to the Sublessee, and the Sublessee does hereby sublease from the Sublessor for the purposes of erecting a 3.8 meter telescope facility to be constructed and managed by and at the expense of the Sublessee in cooperation with the University of Hawaii through a separate contractual arrangement.

EXHIBIT A

I. Location/Area.

A portion of that certain land area described in General Lease S-4191 and more specifically identified in Exhibit A, hereto attached and by reference made a part hereof, together with the right reserved to Sublessor to establish a 20 foot wide easement to accommodate an access road, and power and telephone lines, and the right reserved to Sublessee of access to said premises over and across the common entrances and rights of way, together with others entitled thereto under such rules and regulations as may be established and amended from time to time by the Sublessor. The site designated in Exhibit A is subject to survey by the Sublessor within six (6) months from the date of this Sublease, and the exact area covered by this Sublease, and the easement thereon for the access road, and power and telephone lines reserved to Sublessor, shall be more specifically established by Sublessor and described by metes and bounds, and such description shall be binding upon the Sublessor and Sublessee.

II. Term of Sublease.

To have and to hold the demised premises unto Sublessee in strict compliance with the terms, conditions and restraints contained in General Lease S-4191, a copy of which is attached hereto as Exhibit B, and by this reference made a part hereof, for and during a principal term of not more than twenty-seven (27) years commencing on the 21st day of January, 1976, and thereafter subject to automatic extension without further notice or execution of further documents until the expiration of the General Lease on December 31, 2033. Either party may terminate this Sublease at the expiration of the principal term or after the principal term, upon

at least five (5) years' notice in writing to the other party. In such event, the title to alterations, additions, improvements and equipment affixed or installed shall be determined in accordance with paragraph XIII hereof.

III. Rental Charge.

Sublessee hereby covenants and agrees that in lieu of paying rental for the demised premises it grants to the Sublessor, its officers, employees, agents and invitees, the exclusive use during fifteen percent (15%) of the time at the facility constructed hereunder, as more specifically detailed in a separate Agreement to be concluded between the parties.

IV. Fire or Destruction of Premises.

Destruction of the improvements by fire or other causes rendering the same unsuitable for observatory purposes shall cause a termination of this Sublease, unless the Sublessee notifies the Sublessor within six (6) months of the date of casualty or of the date of discovery of the casualty by Sublessee of its intention to restore the improvements to their prior condition.

THE SUBLESSOR HEREBY COVENANTS WITH THE SUBLESSEE
AS FOLLOWS:

I. Peaceful Enjoyment.

That upon provision by the Sublessee of the use rights in lieu of rent as aforesaid and upon observance and performance of all the terms, covenants and conditions herein contained and on the part of the Sublessee to be observed and performed, the

Sublessee shall peaceably hold and enjoy the demised premises during the term hereof without hindrance or interruption.

THE SUBLESSEE HEREBY COVENANTS WITH THE SUBLESSOR
AS FOLLOWS:

I. Janitorial and Other Services.

That the Sublessee shall provide janitorial, custodial and security services to the demised premises.

II. Repairs and Maintenance.

That the Sublessee shall be responsible for all repair and maintenance of the grounds and the buildings and improvements erected upon the premises, and any modification, improvement, or alteration approved by the Sublessor and made by the Sublessee.

III. General Liability.

That the Sublessee shall at all times with respect to the demised premises use due care for safety, and the Sublessee shall be liable for any loss, liability, claim or demand for property damage, personal injury or death arising out of any injury, death, or damage on the demised premises caused by or resulting from any negligent activities, operations or omissions of the Sublessee on or in connection with the demised premises, subject to the laws of the State of Hawaii governing such liability.

IV. Utilities and Other Charges.

That the Sublessee shall pay when due all charges,

duties and rates of every description, including electricity, water, sewer, gas, refuse collection or any other charges, as to which said demised premises, or any part thereof, or any improvements thereon or the Sublessor or Sublessee in respect thereof may during said term become liable, whether assessed to or payable by the Sublessor or Sublessee. Additionally, the Sublessee shall pay for installation and use of such telephones as may be required.

V. Taxes and Assessments.

That the Sublessee shall pay or cause to be paid, when due, the amount of all taxes, rates, assessments, and other outgoings of every description as to which said demised premises or any part thereof, or any improvements thereon, or the Sublessor or Sublessee in respect thereof, are now or may be assessed or become liable by authority of law during the term of this Sublease.

VI. Right of Entry.

That the Sublessee will allow the Sublessor or its agent(s), at all reasonable times, free access to the demised premises for the purpose of examining the same and determining whether the covenants herein are being fully observed and performed.

VII. Assignment.

That the Sublessee shall not, without the prior written consent of the Sublessor, assign or mortgage this Sublease or any interest therein or sublet the premises hereby demised,

in whole or in part; provided, however, that such consent shall be not arbitrarily or capriciously withheld or delayed and that this provision shall not operate to prevent Sublessee from making the demised premises available to invitees for the purposes permitted hereunder.

VIII. Surrender.

That on the expiration of the term or sooner determination thereof as in this Sublease provided, the Sublessee shall peaceably and quietly leave and surrender and deliver up to the Sublessor the demised premises in good repair, order, and clean condition, reasonable wear and tear excepted.

IX. Expenses on Default. (Intentionally omitted. See Mutual Covenants I and II).

X. Use of Demise.

That the Sublessee shall use the premises exclusively for astronomical facilities to be constructed and managed by and at the expense of Sublessee in cooperation with the University of Hawaii through a separate contractual arrangement, and Sublessee shall not permit or make any waste or strip, or unlawful, improper or abusive use of the demised premises or any part thereof, and Sublessee shall be liable to Sublessor for all damages beyond reasonable wear and tear. As used in this Sublease, the term "reasonable wear and tear" shall include without limitation such grading, excavation and filling of the land demised hereby as may be reasonably required for the construction of the improvements contemplated by this

Sublease and such grading, excavation and filling shall not be deemed to constitute strip or waste.

XI. Liability.

That all goods, ware, merchandise, equipment or other property of the Sublessee shall be kept on the demised premises at the sole risk of the Sublessee.

XII. Alterations.

That the Sublessee shall make no improvements, major alterations or additions to the demised premises without the written consent of the Sublessor, and the Board of Land and Natural Resources; provided, however, that such consent shall not be arbitrarily or capriciously withheld or delayed. In the event that Sublessor or the Board of Land and Natural Resources shall withhold or unreasonably delay approval of the construction of the improvements and major alterations contemplated by this Sublease, or if any necessary governmental approval shall be withheld or unreasonably delayed, then, without prejudice to any other remedy of Sublessee, Sublessee shall have the right to terminate this Sublease and be relieved of all further obligations hereunder.

XIII. Title to Alterations, Additions, Improvements and Equipment.

The Sublessor upon the termination or expiration of this Sublease for any cause shall have the first option within thirty (30) days thereafter, upon notice in writing to Sublessee, to purchase at a negotiated figure all structural alterations, additions, improvements made and equipment affixed

or installed with the approval of Sublessor and at the expense of the Sublessee. In the event that the parties are unable to agree on such negotiated figure within thirty (30) days from the date of such notice, the dispute shall be submitted to arbitration as provided in paragraph I of MUTUAL COVENANTS below. If Sublessor does not exercise this option, Sublessee may sell the assets to a third party acceptable to the Sublessor, or Sublessee (1) may with the approval of the Chairman of the Board of Land and Natural Resources, which approval will not be unreasonably withheld, surrender the same in place, in whole or in part, without cost to the Sublessor or (2) otherwise the Sublessee shall remove the same, in whole or in part, at its expense within one (1) year after termination or expiration. In the event of removal, the Sublessee shall restore the property or any portion affected thereby to even grade to the extent that improvements are removed and shall repair any damage done to the improvements in the event that equipment is removed.

XIV. Default.

That the Sublessee shall peaceably surrender the demised premises to the Sublessor if Sublessee fails to observe or perform any condition or covenant herein provided within thirty (30) days after being notified by the Sublessor of such failure, or in the event that more than thirty (30) days are reasonably required, then Sublessee shall commence such observance or performance within said thirty (30) days and shall diligently prosecute the same to completion.

AND THE PARTIES MUTUALLY COVENANT AS FOLLOWS:

I. Disputes.

Any controversy, claim or dispute concerning a question

of fact arising under this Sublease which is not disposed of by agreement within thirty (30) days shall be referred to and decided by a board of arbitration, which shall act by majority, consisting of three persons who shall reduce their decision to writing and furnish a copy of each party. One arbitrator shall be selected by the Sublessor and one shall be selected by the Sublessee; the arbitrators so selected shall jointly select the third neutral arbitrator. In the event that (i) either party fails to name its arbitrator, or (ii) the first two arbitrators are unable to agree on a third arbitrator, then in the first case the party which has named its arbitrator and in the second case either party may apply to any judge of the Circuit Court for the First Judicial Circuit to appoint such arbitrator and the decision of such judge shall be final and binding. The parties shall be entitled to be heard in any such proceeding. The arbitration shall proceed in accordance with the rules of the American Arbitration Association. The decision of the arbitrators shall be final and conclusive subject to the provision of Chapter 658, H.R.S., as amended.

II. Expenses of Disputes.

Each party shall pay its own expenses of arbitration including without limitation the fee of its arbitrator and the fee of the neutral arbitrator shall be divided equally; provided, however, that the arbitrators as part of their decision may provide for a different allocation of expenses.

All post arbitration expenses including reasonable attorney's fees, for judicial review of the decision of the arbitrators, shall be awarded to the prevailing party.

III. Conflict.

In the event any term or condition contained herein is inconsistent with or contrary to Exhibit B, the said Exhibit B shall be controlling.

IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first above written.

UNIVERSITY OF HAWAII

By Roy Y. Jolley

By Roy Y. Jolley

Sublessor

SCIENCE RESEARCH COUNCIL

By Richard D. Walker

By Richard D. Walker

Sublessee

APPROVED:

STATE OF HAWAII

By W. F. Thompson

Chairman and Member
Board of Land and Natural Resources

By Laurel H. Hays

Member
Board of Land and Natural Resources

APPROVED BY THE BOARD OF
LAND AND NATURAL RESOURCES
AT ITS MEETING HELD ON

November 13, 1977

APPROVED AS TO FORM:

By John W. Worsley

Deputy Attorney General

STATE OF HAWAII

CITY AND COUNTY OF HONOLULU

)
) SS:
)

On this 21st day of January, 1976, before me appeared Reg. Y. Takayama and Kenji Shimada, University of Hawaii, to me personally known, who being by me duly sworn, did say that they are the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed, and further declare that they are the Secretary of the Board and Director of Finance, respectively, of the University of Hawaii and that the seal affixed to the foregoing instrument is the corporation seal of said institution and that said instrument was signed and sealed in behalf of said institution by authority of its Board of Regents.

Park M. Chang
Notary Public, First Judicial
Circuit, State of Hawaii

My commission expires: September 30, 1976

KINGDOM
~~EMPIRE~~ OF ENGLAND

CITY AND COUNTY OF LONDON

)
) SS:
)

On this 2nd day of December, 1975, before me
Edwards
appeared Professor Sir Samuel Frederick and Ravmond St. John Walker,
of the SCIENCE RESEARCH COUNCIL, to me personally known, who
being by me duly sworn, did say that they are the persons described
in and who executed the foregoing instrument, and acknowledged
that they executed the same as their free act and deed, and
further declare that they are the Chairman
and Secretary, respectively, of the SCIENCE
RESEARCH COUNCIL, and that the seal affixed to the foregoing
instrument is the seal of said Council and that said instrument
was signed and sealed in behalf of said Council by authority
of its Chairman.



W. H. H. H.
Notary Public,
of London, England

My commission expires: at death



SCIENCE RESEARCH COUNCIL

By Anthony Allen

By Brian J. O'Leary

Sublessee

KINGDOM OF ENGLAND

COUNTY OF GREATER LONDON

)
) SS:
)

On this 21st day of September, 1978, before me
appeared GEOFFREY ALLEN and BRIAN

WYNNE OAKLEY, of the SCIENCE RESEARCH COUNCIL,
to me personally known, who being by me duly sworn, did say that
they are the persons described in and who executed the foregoing
instrument, and acknowledged that they executed the same as their
free act and deed, and further declare that they are the
Chairman and Secretary, respectively,
of the SCIENCE RESEARCH COUNCIL, and that the seal affixed to the
foregoing instrument is the seal of said Council and that said in-
strument was signed and sealed in behalf of said Council by author-
ity of the Chairman.



John Wilkinson
Notary Public,
of London, England.
My commission expires:

at least

EXHIBIT A



MAY 1975

13400

3m INFRARED TELESCOPE
FACILITY

300 FT. DIA. CIRCLE
APPROX. CENTER COORDINATES
19° 49' 45" N
155° 28' 29" W

3.6m CFH

61cm PLANETARY PATROL

2.24m UH
13,777

3.8m UKIRT

61cm AIR FORCE

SUMMIT
13796

VABM

Approximate Coordinates of UKIRT Site
19° 49' 31" N, 155° 28' 25" W

EXHIBIT "B"

GENERAL LEASE NO. S-4191

THIS INDENTURE OF LEASE, made this 2/-1 day of 9, 1968, by and between the STATE OF HAWAII, by its Board of Land and Natural Resources, pursuant to the provisions of Section 103A-90(b), Revised Laws of Hawaii 1955, as amended, hereinafter referred to as the "LESSOR", and the UNIVERSITY OF HAWAII, a body corporate, whose post office address is 2444 Dole Street, Honolulu, City and County of Honolulu, State of Hawaii, hereinafter referred to as the "LESSEE",

WITNESSETH THAT:

FOR and in consideration of the mutual promises and agreements contained herein, the Lessor does hereby demise and lease unto the said Lessee and the said Lessee does hereby rent and lease from the Lessor, all of that certain parcel of land situate at Kahe, Hamakua, County and Island of Hawaii, State of Hawaii, and more particularly described in Exhibit "A", hereto attached and made a part hereof.

TO HAVE AND TO HOLD, all and singular the said premises, herein mentioned and described, unto the said Lessee, for and during the term of sixty-five (65) years, to commence from the 1st day of January, 1968, and to terminate on the 31st day of December, 2032.

EXHIBIT "B"

RESERVING UNTO THE LESSOR THE FOLLOWING:

1. Water Rights. All surface and ground waters appurtenant to the demised premises, together with the right to enter and to capture, divert or impound water; provided, that the Lessor shall exercise such rights in such manner as not to interfere unreasonably with the Lessee's use of the demised premises; provided, further, that the Lessee shall have the right to use the waters of Lake Waiau for any purpose necessary or incidental to the use permitted by this lease on the following conditions:

a. No drilling or disturbance of Lake Waiau's bottom, banks or areas adjacent thereto shall be permitted;

b. No activity shall be permitted which will result in the pollution of the waters of Lake Waiau;

c. Lessee shall not take or divert any of the waters arising from springs which furnish the water supply for Pohakuloa, and no alterations to said springs shall be made by Lessee.

2. Access. All rights to cross the demised premises for inspection or for any government purposes.

3. Hunting and Recreation Rights. All hunting and recreation rights on the demised lands, to be implemented pursuant to rules and regulations issued by said Board in discharging its fish and game or state parks responsibilities; provided, however, that such hunting and recreation activities shall be coordinated with the activities of the Lessee on the demised lands; and provided, further, that such hunting and recreation activities shall be limited to day-light hours only.

4.- Right to use Demised Lands. The right for itself, and its successors, lessees, grantees and permittees, to use any portion of the lands demised and the right to grant to others rights and privileges affecting said land; provided, however, that, except as otherwise provided herein, no such use shall be permitted or rights and privileges granted affecting said lands, except upon mutual determination by the parties hereto that such use or grant will not unreasonably interfere with the Lessee's use of the demised premises; provided, further, that such agreement shall not be arbitrarily or capriciously withheld.

THE LESSEE, IN CONSIDERATION OF THE PREMISES; COVENANTS WITH THE LESSOR AS FOLLOWS:

1. Surrender. The Lessee shall, at the expiration or sooner termination of this lease, peaceably and quietly surrender and deliver possession of the demised premises to the Lessor in good order and condition, reasonable wear and tear excepted.

2. Maintenance of the Premises. The Lessee shall keep the demised premises and improvements in a clean, sanitary and orderly condition.

3. Waste. The Lessee shall not make, permit or suffer, any waste, strip, spoil, nuisance or unlawful, improper or offensive use of the demised premises.

4. Specified Use. The land hereby leased shall be used by the Lessee as a scientific complex, including without limitation thereof an observatory, and as a scientific reserve being more specifically a buffer zone to prevent the intrusion of activities inimical to said scientific complex.

Activities inimical to said scientific complex shall include light and dust interference to observatory operation

during hours of darkness and certain types of electric or electronic installation on the demised lands, but shall not necessarily be limited to the foregoing.

5. Assignments. The Lessee shall not sublease, sub-rent, assign or transfer this lease or any rights thereunder without the prior written approval of the Board of Land and Natural Resources.

6. Improvements. The Lessee shall have the right during the existence of this lease to construct and erect buildings, structures and other improvements upon the demised premises; provided, that plans for construction and plot plans of improvements shall be submitted to the Chairman of the Board of Land and Natural Resources for review and approval prior to commencement of construction. The improvements shall be and remain the property of the Lessee, and shall be removed or disposed of by the Lessee at the expiration or sooner termination of this lease; provided, that with the approval of the Chairman such improvements may be abandoned in place. The Lessee shall, during the term of this lease, properly maintain, repair and keep all improvements in good condition.

7. Termination by the Lessor. The Lessee may terminate this lease at any time by giving thirty (30) days' notice in writing to the Lessor.

8. Termination by the Lessor. In the event that (1) the Lessee fails to comply with any of the terms and conditions of this lease, or (2) the lessee abandons or fails to use the demised lands for the use specified under paragraph 4 of these covenants for a period of two years, the Lessor may terminate this lease by giving six months' notice in writing to the Lessee.

9. Non-Discrimination. The Lessee covenants that the use and enjoyment of the premises shall not be in support of any

policy which discriminates against anyone based upon race, creed, color or national origin.

10. General Liability. The Lessee shall at all times, with respect to the demised premises, use due care for safety, and the Lessee shall be liable for any loss, liability, claim or demand for property damage, personal injury or death arising out of any injury, death or damage on the demised premises caused by or resulting from any negligent activities, operations or omissions of the Lessee on or in connection with the demised premises, subject to the laws of the State of Hawaii governing such liability.

11. Laws, Rules and Regulations, etc. The Lessee shall observe and comply with Regulation 4 of the Department of Land and Natural Resources and with all other laws, ordinances, rules and regulations of the federal, state, municipal or county governments affecting the demised lands or improvements.

12. Objects of Antiquity. The Lessee shall not appropriate, damage, remove, excavate, disfigure, deface or destroy any object of antiquity, prehistoric ruin or monument of historical value.

13. Undesirable Plants. In order to prevent the introduction of undesirable plant species in the area, the Lessee shall not plant any trees, shrubs, flowers or other plants in the leased area except those approved for such planting by the Chairman.

IN WITNESS WHEREOF, the STATE OF HAWAII, by its Board of Land and Natural Resources, has caused the seal of the Department of Land and Natural Resources to be hereunto affixed and these presents to be duly executed this 2/18

day of November, 1968, and the UNIVERSITY OF
HAWAII, by its Attorney General and 7111111111111111
has caused these presents to be duly executed this 11th
day of November, 1968, effective as of the day and
year first above written.

STATE OF HAWAII

By: *James F. Lee*
Chairman and Member
Board of Land and
Natural Resources

And By: *Aleneo M. King*
Member
Board of Land and
Natural Resources

UNIVERSITY OF HAWAII

By: *Robert W. Lott*
Its Acting President

And By: *Adolf L. Loh*
Its Attorney General

APPROVED AS TO FORM: *[Signature]*

Deputy Attorney General
Dated: 11/11/68

min
Proofed by: *[Signature]*

EXHIBIT "A"

MAUNA KEA SCIENCE RESERVE

Kaohu, Hamakua, Island of Hawaii, Hawaii

Being a portion of the Government Land of Kaohu

Beginning at a point on the south boundary of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "SUMMIT 1955" being 12,325.95 feet South and 471.84 feet West, as shown on Government Survey Registered Map 2789, thence running by azimuths measured clockwise from True South:-

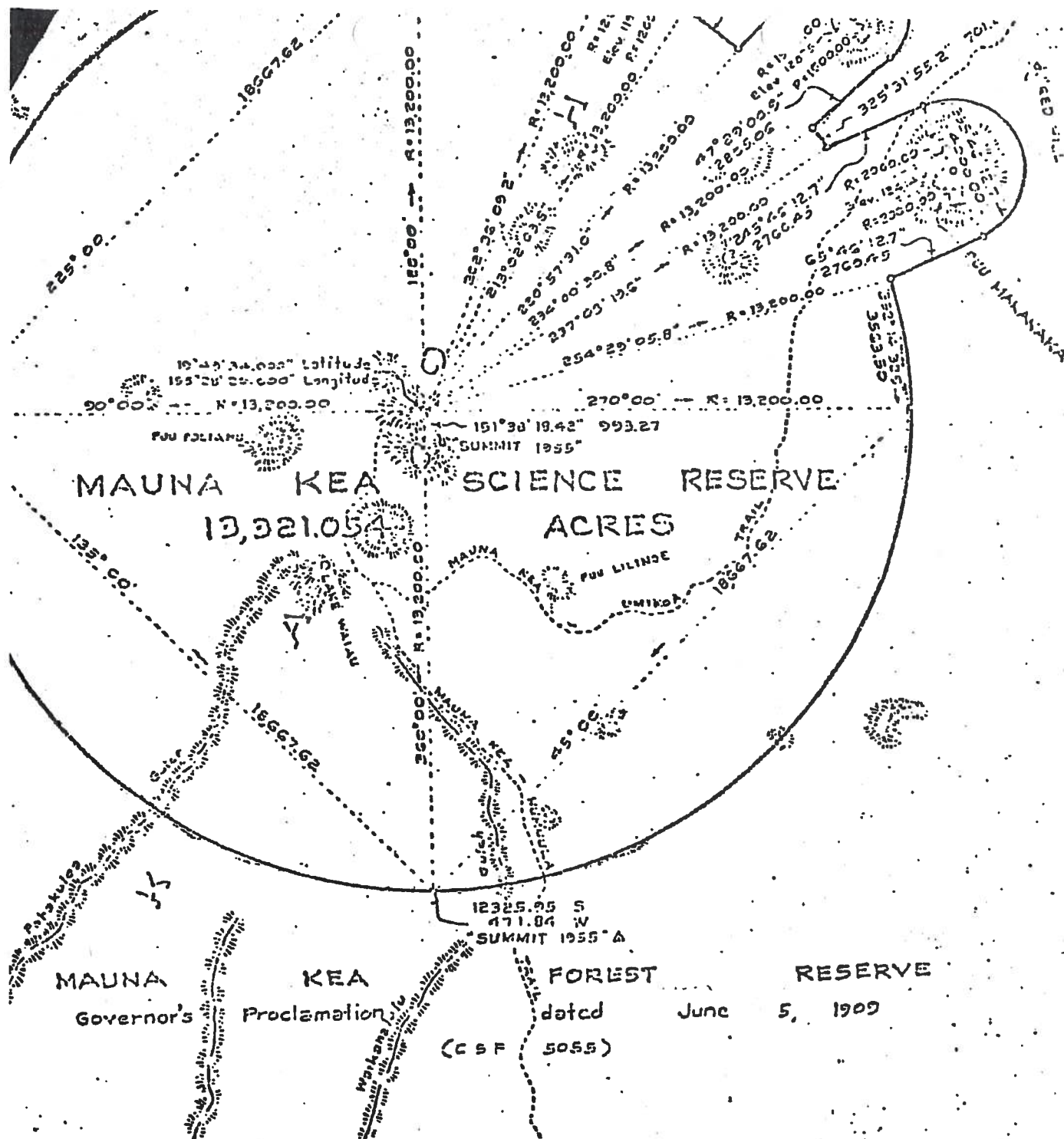
1. Along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 13,200.00 feet, the chord azimuth and distance being: 135° 00' 18,667.62 feet;
2. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, still on a curve to the right with a radius of 13,200.00 feet, the chord azimuth and distance being: 225° 00' 18,667.62 feet;
3. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, still on a curve to the right with a radius of 13,200.00 feet, the chord azimuth and distance being: 201° 18' 04.6" 5173.56 feet;
4. 207° 49' 06.5" 841.83 feet along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909;
5. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 1200.00 feet, the chord azimuth and distance being: 297° 49' 06.5" 2400.00 feet;

6. 27° 49' 06.5" 841.83 feet along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909;
7. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 13,200.00 feet, the chord azimuth and distance being: 306° 59' 47.4" 1824.16 feet;
8. 227° 29' 00.9" 2805.06 feet along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909;
9. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 1500.00 feet, the chord azimuth and distance being: 317° 29' 00.9" 3000.00 feet;
10. 47° 29' 00.9" 2805.06 feet along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909;
11. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 13200.00 feet, the chord azimuth and distance being: 325° 31' 55.2" 701.87 feet;
12. 245° 46' 12.7" 2760.45 feet along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909;
13. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 2000.00 feet, the chord azimuth and distance being: 335° 46' 12.7" 4000.00 feet;
14. 65° 46' 12.7" 2760.45 feet along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909;
15. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, on a curve to the right with a radius of 13,200.00 feet, the chord azimuth and distance being: 352° 14' 32.9" 3563.50 feet;

6. Thence along Mauna Kea Forest Reserve, Governor's Proclamation dated June 5, 1909, ... on a curve to the right with a radius of 13,200.00 feet, the chord azimuth and distance being: 45° 00' 10,667.62 feet to the point of beginning and containing an AREA OF 13,321.054 ACRES.

EXCEPTING and RESERVING to the State of Hawaii and to all others entitled thereto, the Mauna Kea-Humuula and Mauna Kea-Umikoia Trails, and all other existing trails within the above-described parcel of land, together with rights of access over and across said trails.

ALSO, EXCEPTING and RESERVING to the State of Hawaii, its successors and assigns, the waters and all riparian and other rights in and to all the streams within the above-described parcel of land.



MAUNA KEA SCIENCE RESERVE

Kaohu, Hamakua, Island of Hawaii, Hawaii

Scale: 1 inch = 4000 feet

HC1254

AGREEMENT BETWEEN:

THE SCIENCE RESEARCH COUNCIL
AND THE UNIVERSITY OF HAWAII

CONCERNING

THE CONSTRUCTION AND OPERATION OF A
3.8-METER TELESCOPE ON MAUNA KEA

Recognizing the increasing number of astronomical studies made in the infrared spectral region and the importance assigned to such observations by astronomers from the United Kingdom and from the State of Hawaii;

Recognizing the desirability of developing international cooperation in major scientific undertakings;

Recognizing the high quality of the summit area of Mauna Kea as a site for astronomical observations, particularly in the infrared;

The Science Research Council (SRC) and the University of Hawaii (UH) hereafter referred to as the Agencies, agree as follows:

1. That the Agencies, under conditions further delineated below, will design, construct and operate on Mauna Kea, Hawaii, a telescope of 3.8-meter aperture, (the "telescope") together with the laboratories, equipment and associated installations required to support this project.

2. The SRC will:

- (a) be solely responsible for, and provide the funds necessary for, the design, fabrication, operation and installation on Mauna Kea of a telescope together with a building to protect and house this equipment; will obtain

EXHIBIT B

such permits for construction as shall be needed; and will provide for connection to a central electricity terminal to be provided on Mauna Kea by UH;

(b) during the construction phase, undertake to contribute towards the maintenance of the road from Hale Pohaku to the telescope which contribution shall be based on actual usage of the road by the contractors working for the SRC and, during the operation phase, undertake to contribute on an equitable basis with all other users.

(c) be responsible for insuring that the contractors working for the SRC and other SRC sponsored personnel observe such uniform regulations as are established by UH for the preservation of the environmental quality and scientific integrity of the summit area;

(d) during the term of its Sublease undertake to pay the prorata costs, including amortization of the permanent financing for offices, laboratories, accommodations and related services, provided by the UH at the mid-level facility specifically for SRC use pursuant to Section 3(f) below; such costs to be subject to a separate and future agreement;

3. The UH will:

(a) provide a Sublease to the SRC in the form attached as Exhibit A hereto. In lieu of rental, the facilities will be available to UH 15% of the time, divided between day and night over the seasons of the year and the phases of the moon in an equitable fashion. In no event shall UH cumulate more than a 9-month entitlement to its 15% of the time nor shall UH be entitled to anticipate more than 3-months entitlement to its 15% of the time. UH sponsored

personnel shall be subject to the authority of a designated SRC officer when using the facilities of SRC and SRC shall be responsible for the detailed scheduling of such time;

(b) ensure the right of access to the subleased property so that the property will not be landlocked, and to such other easements as may be deemed appropriate by UH for utilities;

(c) provide an access road having characteristics consistent with the overall plans for the development for Mauna Kea Observatory area to a boundary line of the subleased property;

(d) provide electric power at a central terminal or generator near the Mauna Kea Observatory area sufficient to meet the requirements of the SRC telescope facility up to a maximum of 75-kw. The costs of connection from the telescope site to the central terminal or generator will be paid by the SRC;

(e) make available to SRC, at no cost to UH, a telephone connection from the telescope facility to the Hawaiian Telephone Company system;

(f) undertake to construct and maintain at a mid-level site on Mauna Kea a complex of office, laboratory and apartment buildings within which, subject to 2(d) above, five (5) apartments and two townhouses, plus two laboratories of approximately 800 square feet in the aggregate, will be set aside for use by the SRC.

4. Cooperative Scientific Programs.

It is specifically envisaged that cooperative scientific programs between astronomers in the United Kingdom

and the State of Hawaii will develop, and it is the intent of the parties that these be encouraged. Accordingly, the UH, through its Institute for Astronomy, will give close and sympathetic attention to requests, from astronomers sponsored by the SRC for work on the telescope, to use space and facilities in the Institute's headquarters building on the Manoa Campus of the University of Hawaii on the basis of no profit or cost to UH, subject to the availability of such space and facilities.

5. Reimbursable Services.

Subject to continued operation of the UH astronomical facilities on Mauna Kea, UH will sympathetically consider requests from SRC to provide special services associated with the operation and maintenance of the telescope facility on a cost reimbursable basis. Through details which will be the subject of a separate agreement, UH will provide fuel at the mid-level area (subject to commercial availability), general workshop services and automobile service facilities. UH anticipates that other services and supplies to be supplied on a cost reimbursable basis, will include transportation, liquified gases (particularly helium), certain communications, telephone and telex services, administrative facilities, along with the supervision of staff and services required for the maintenance of the telescope facility and its associated specialized systems. At the request of SRC, such special services as may be provided by UH for its sublessees or other users of the Mauna Kea Observatory shall be made available to SRC on an equitable basis.

6. Temporary Facilities.

The SRC may at its own expense construct a tem-

and SRC sponsored personnel during the period prior to completion by UH of the mid-level facilities provided for in Section 3(f) above, subject to the same approval procedure required under Section XII of the Sublease.

7. General Liability.

The parties shall each at all times with respect to the areas and activities subject to this Agreement use due care for safety and each shall be liable to the other for any loss liability, claim or demand for property damage, personal injury or death arising out of any injury, death, or damage caused by or resulting from any negligent activities, operations or omissions by such party subject to the laws of the State of Hawaii governing such liability.

8. Disputes.

Disputes under this Agreement shall be subject to the same provisions and procedures as provided in Mutual Covenants I and II of the Sublease.

This Agreement is intended to be legally binding upon and inure to the benefit of the parties and their respective successors and assigns in accordance with the provisions of Hawaii law.

UNIVERSITY OF HAWAII

By *V. Paul Woods*
Its Contracts Officer

SCIENCE RESEARCH COUNCIL

By *H. H. Atkinson*
Its H H Atkinson
Head. ASR Division

EXHIBIT C

[PENDING]

EXHIBIT D

STFC retains all IP (including the Copyright in the technical specifications and drawings and any design rights) in the following items which UH have a license to use to the extent provided in section 2 of this Agreement:

Inventory number	Description	Room
122413	UNITED KINGDOM OPTICAL INFRA RED TELESCOPE WITH 4M	Dome
122414	COOLED GRATING SPECTROMETER TELESCOPE INSTRUMENT (CGS4)	DOMEX
150172	THERMAL IMAGER TELESCOPE INSTRUMENT (UFTI)	Dome Ext
150173	THERMAL INFRARED IMAGER & SPECTROMETER TELESCOPE I (MICHELLE)	Dome
150184	UKIRT IMAGING SPECTROMETER - UIST	DOMEX
150199	WFCAM	Dome

All software remains Copyright 2007-2013 United Kingdom Astronomy Technology Centre, an establishment of the Science and Technology Facilities Council and is available for use under a GPL License.

EXISTING SUBLEASES

Sublessee	Date of Bd Action	Character of Use	Area	EIS	CDUP Appr'd	Sublease Term
National Aeronautics and Space Administration	2/19/75, Item F-1-d	Erecting and operating infrared astronomical observatory facilities	70,650 sf	Appr'd 8/4/75	HA-653; 8/29/75, Item H-5	11/29/74-12/31/33
Canada-France-Hawaii Telescope Corporation	11/7/75, Item F-11	Erecting and managing astronomical observatory research facilities	2 acres	Appr'd 8/12/74	HA-527	12/18/75-12/31/33
Science Research Council, now known as Science and Technology Facilities Council	11/18/77, Item F-17	Erecting and managing astronomical observatory research facilities	32,000 sf	Appr'd 8/4/75	HA-653; 8/29/75, Item H-5	1/21/76-12/31/33
Science and Engineering Research Council	4/22/83, Item F-1-f	Construction and operation of a 15-meter telescope facility and appurtenant improvements	2 acres	Appr'd 1/20/83	HA-1515; 2/25/83, Item H-11	2/10/84-12/31/33
California Institute of Technology	8/26/83, Item F-1-i	Construction and operation of a 10.4 meter telescope	.75 acre	Appr'd 8/26/82	HA-1492; 12/17/82, Item H-6	12/20/83-12/31/33
California Institute of Technology	6/14/85, Item F-1-a	Construction and operation of the WM Keck 10-meter telescope observatory	2 acres	Appr'd 1/20/83	HA-1646; 8/24/84, Item H-1; HA-2509	10/30/85-12/31/33
National Astronomical Observatory of Japan	8/21/97, Item D-1	Construction and operation of the 8-meter Japan national large telescope	5.4 acres	Appr'd 1/20/83	HA-2642	6/5/92-12/31/33
Smithsonian Institution	8/21/97, Item D-2	Construction and operation of the Smithsonian submillimeter array telescope	3 acres	Appr'd 1/20/83	HA-2728	5/15/95-12/31/33
Associated Universities Inc.	8/21/97, Item D-3	Construction and operation of a very long baseline array antenna	87,500 sf	Appr'd 11/2/88	HA-2174	9/28/90-12/31/33
National Science Foundation	8/21/97, Item D-4	Construction and operation of the Gemini 8-meter telescope	2 acres	Appr'd 1/20/83	HA-2691	9/26/94-12/31/33

ATTACHMENT 3



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF LAND MANAGEMENT

P. O. BOX 671

HONOLULU, HAWAII 96809

November 18, 1977

DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Board of Land and
Natural Resources
Honolulu, Hawaii

Gentlemen:

HAWAII

Subject: Resubmittal
Consent to Sublease, University of Hawaii and
Science Research Council Relative to Erection
and Management of Astronomical Observatory
Facilities on the Summit of Mauna Kea, Kahohe,
Hamakua, Hawaii

In 1968 the University of Hawaii, under General Lease
No. S-4191, was granted the use of 31,321 acres of State
land at the summit of Mauna Kea for 65 years.

The specified use is one of a scientific complex,
including without limitation thereof, an observatory, and as
a scientific reserve being more specifically a buffer zone
to prevent the intrusion of activities inimical to said
scientific premises.

Paragraph 5 of the lease covenants states, "The Lessee
shall not sublease, subrent, assign or transfer this lease
or any rights thereunder without the prior written approval
of the Board of Land and Natural Resources."

Paragraph 6 of said covenant states, "The Lessee shall
have the right ...to construct and erect buildings, structures
and other improvements upon the demised premises; provided,
that plans for construction and plot plans of improvements
shall be submitted to the Chairman of the Board of Land and
Natural Resources for review and approval prior to commencement
of construction."

By letter dated February 4, 1976, the University of Hawaii,
Procurement and Property Management Office, requested that
the Board give its consent to a proposed Sublease Agreement
between the University and the Science Research Council of
the United Kingdom. The Agreement will permit the Sublessee
to use a portion of the summit area of approximately 32,000
square feet, as delineated on map appended to basic file,
for purposes of erecting and managing astronomical observatory
research facilities with assistance by the University.

ITEM F-17

ATTACHMENT 4

November 18, 1977

The site designated on map is subject to survey by Sublessor within six (6) months from date of this sublease, and the exact area covered by this Sublease, and the easement thereon for the access road, and power and telephone lines reserved to Sublessor, shall be more specifically established by Sublessor and described by metes and bounds, and such description shall be binding upon the Sublessor and Sublessee.

In lieu of paying rental for the demised premises, the Sublessee will grant the Sublessor, its officers, employees, agents and invitees, the exclusive use during fifteen percent (15%) of the time at the proposed facility, as more specifically detailed in a separate Agreement to be concluded between the parties.

On August 4, 1975, in a letter to the University of Hawaii, the Governor accepted the Environmental Impact Statement for the project; the Conservation District Use Application was approved by the Board, in conjunction with NASA facilities, on August 29, 1975, under agenda Item H-5; and on December 10, 1975, construction drawings for the facility were approved.

The terms and conditions of uses embodied in the proposed Agreement are in conformity with General Lease No. S-4191; i.e., Paragraphs Nos. 5 and 6, abovementioned. The tenure of Agreement is for a principal term of not more than twenty-seven (27) years commencing on January 21, 1976, "...and thereafter subject to automatic extension without further notice or execution of further documents until the expiration of the General Lease on December 31, 2033." (Underscoring added.)

This submittal was deferred by the Board at its meeting of May 14, 1976, until such time as the following matters could be resolved:

1. That the University of Hawaii be allowed to use the observatory during 20 percent of the time; and that
2. This time should not be considered in lieu of rent payment, but in addition to rent payment.
3. Posting of a bond to guarantee removal of observatory structure and returning the site to a condition acceptable by the Department, in the event the observatory is not needed.

Conditions 1 and 2 have been resolved; the terms to remain as originally defined (15 percent of the time in lieu of rental payment). Insofar as condition No. 3 is concerned, the Government of the United Kingdom (with which the Science Research Council is affiliated) is prepared to guarantee, in lieu of actually posting a bond, that removal and restoration will be accomplished if necessary.

Board of Land and
Natural Resources

November 18, 1977

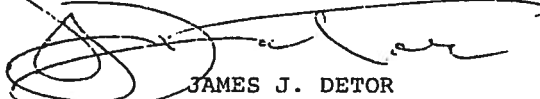
RECOMMENDATION:

That the Board approve of and grant its consent to the proposed Sublease Agreement between the University of Hawaii and the Science Research Council of the United Kingdom, subject to the following terms and conditions:

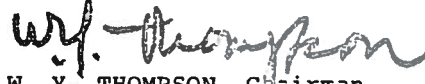
- A. Either the Sublessee or Sublessor inform the Board in writing of any extension of the Sublease Agreement beyond the tenure of twenty-seven (27) years.
- B. That the sublessee obtain, in writing, a commitment by the Government of the United Kingdom guaranteeing removal of the observatory structure and returning the site back to a condition acceptable by the Department, in the event the observatory is no longer needed.

In the event that the Government of the United Kingdom does not post such a written guarantee, the sublessee shall post and keep in force a bond or other security acceptable to the Department in the amount of \$300,000 to guarantee such removal and restoration.

Respectfully submitted,


JAMES J. DETOR
Land Management Administrator

APPROVED FOR SUBMITTAL:


W. Y. THOMPSON, Chairman